ESGAP
ESCMID STUDY GROUP FOR ANTIMICROBIAL STEWARDSHIP
European Society of Clinical Microbiology and Infectious Diseases

DES RECOMMANDATIONS DE BON USAGE AUX MODIFICATIONS DE COMPORTEMENT

Pr Céline PULCINI

Nancy

JNI – Juin 2018

Liens d’intérêt

- Aucun en rapport avec le sujet

INTRODUCTION

Si les recommandations et la formation suffisaient…

- Elles seraient suivies et efficaces dans 100% des cas
- Et toutes les stratégies incluses dans les programmes de bon usage des antibiotiques fonctionneraient partout

Clinical Microbiology and Infection 23 (2017) 799–805

Contents lists available at ScienceDirect

Clinical Microbiology and Infection

journal homepage: www.clinicalmicrobiologyandinfection.com

Review

Antibiotic stewardship: does it work in hospital practice? A review of the evidence base

M.E.J.L. Hulscher [1,*], J.M. Prins [2]

- Pas de recette miracle
- Menu d'options

MULTIPLES DÉTERMINANTS

Déterminants

Extrinsèques

- ‘Culture’ du pays, de la région, du lieu d’exercice
- Obligations réglementaires
- Socio-économiques
- Stratégies mises en place, et leur déploiement
- …

Intrinsèques

- Psychologie
  - Perceptions
  - Attitudes
- Connaissances
- …

J Antimicrob Chemother 2012; **67**: 763–767
doi:10.1093/jac/dkr541 Advance Access publication 26 December 2011

Journal of Antimicrobial Chemotherapy

National cultural dimensions as drivers of inappropriate ambulatory care consumption of antibiotics in Europe and their relevance to awareness campaigns

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Received 12 July 2011; returned 2 November 2011; revised 7 November 2011; accepted 26 November 2011

Objectives: European countries exhibit significant geographical differences in antibiotic consumption per capita within ambulatory care, especially inappropriate use for colds/flu/sore throat (CFSt). One potential explanation could be national cultural differences resulting in varying perceptions and, therefore, influences.

Methods: Publicly available data on the proportions of respondents in the 2009 Eurobarometer survey who had taken antibiotics for CFSt were tested for association against country scores derived from the Hofstede cultural dimension model. They were also correlated with knowledge of respondents about various key antibiotic facts.

Results: The Eurobarometer dataset incorporated 26 259 responses from all European Union (EU) countries except Cyprus. Using multiple regression, uncertainty avoidance and masculinity were identified as the two national cultural dimensions significantly associated with the use of antibiotics for CFSt (R-adjusted=0.45; $P<0.001$). After controlling for these cultural influences, individuals who stated they had received information about antibiotics in the previous year were also more likely to correctly answer antibiotic-related questions ($r=0.721$; $P<0.001$). The use of antibiotics for CFSt was found to be inversely correlated with respondents' knowledge that antibiotics are ineffective against viruses ($r=-0.724$; $P<0.001$) and that misuse will render them ineffective in the longer term ($r=-0.775$; $P<0.001$).

Conclusions: National cultural dimensions, especially uncertainty avoidance and masculinity, appear to have a very significant impact on inappropriate antibiotic use within European countries. Nevertheless, their influence can be reduced by making EU citizens more knowledgeable about antibiotics through appropriate messages and targeted campaigns.

Int J Public Health (2010) 55:469–478
DOI 10.1007/s00038-010-0167-y

ORIGINAL ARTICLE

Socioeconomic determinants of outpatient antibiotic use in Europe

Giuliano Masiero · Massimo Filippini · Matus Ferech · Herman Goossens

Received: 25 May 2009 / Revised: 22 March 2010 / Accepted: 2 June 2010 / Published online: 7 July 2010

Abstract

Objectives Outpatient antibiotic consumption widely varies across Europe. The investigation of the causes of such variation may help to identify interventions that would improve the efficient use of antibiotics. The aim of this study was to assess the impact of socioeconomic determinants and the role played by information about bacterial resistance.

Methods Comparable data on systemically administered antibiotics and socioeconomic determinants in 17 European countries were available between 2000 and 2005. We estimated an ad hoc econometric model by means of a hybrid log–log functional form and random effects generalised least squares regressions. Lagged values and the instrumental variable method were applied to address endogeneity of bacterial resistance and infections. Bacterial resistance was measured by the rate of penicillin non-susceptible *Streptococcus pneumoniae* isolates (PNSP) and methicillin-resistant *Staphylococcus aureus* (MRSA).

Results The population income, demographic structure, density of general practitioners and their remuneration method appeared to be significant determinants of antibiotic consumption. Although countries with higher levels of bacterial resistance exhibited significantly higher levels of per capita antibiotic use, ceteris paribus, the responsiveness of antibiotic use to changes in bacterial resistance was relatively low (0.09–0.18).

Conclusions The study confirms that socioeconomic factors should be taken into account while explaining differences in outpatient antibiotic use across countries. The impact of supply-side factors and incentives attached to payment schemes for physicians need to be considered in government interventions to reduce inequalities and improve effectiveness in antibiotic utilisation.

Touboul-Lundgren et al. BMC Public Health (2015) 15:908
DOI 10.1186/s12889-015-2254-8

BMC Public Health

RESEARCH ARTICLE Open Access

Identification of cultural determinants of antibiotic use cited in primary care in Europe: a mixed research synthesis study of integrated design "Culture is all around us"

Pia Touboul-Lundgren[1,2*], Siri Jensen[3,4], Johann Drai[1,2] and Morten Lindbæk[3,4]

Clinical Microbiology and Infection 23 (2017) 441–447

Contents lists available at ScienceDirect

Clinical Microbiology and Infection

journal homepage: www.clinicalmicrobiologyandinfection.com

Review

Managing responsible antimicrobial use: perspectives across the healthcare system

O.J. Dyar [1,4], G. Tebano [2,4], C. Pulcini [3,*], on behalf of ESGAP (ESCMID Study Group for Antimicrobial stewardshiP)

Le prescripteur
dans son environnement:

- Autres professionnels de santé, les patients
- Le lieu d'exercice
- La culture
- L'organisation des soins…

QUELLES STRATÉGIES?

Cadres théoriques

- Implementation science: comment faire en sorte que les données de la science soient mises en pratique
- Plus récemment: knowledge translation

- Quality improvement : améliorer la qualité des soins (indicateurs qualité mesurables)

- Utilisent des ‘behaviour change techniques’: agir sur les déterminants psychologiques

Menu d'options

Table 1 Approaches to changing clinical practice

Approach	Theories	Focus	Interventions, strategy
Focus on internal processes			
Educational	Adult learning theories	Intrinsic motivation of professionals	• Bottom up, local consensus development • Small group interactive learning • Problem based learning
Epidemiological	Cognitive theories	Rational information seeking and decision making	• Evidence based guideline development • Disseminating research findings through courses, mailing, journals
Marketing	Health promotion, innovation and social marketing theories	Attractive product adapted to needs of target audience	• Needs assessment, adapting change proposals to local needs • Stepwise approach • Various channels for dissemination (mass media and personal)
Focus on external influences			
Behavioural	Learning theory	Controlling performance by external stimuli	• Audit and feedback • Reminder systems, monitoring • Economic incentives, sanctions
Social interaction	Social learning and innovation theories, social influence/power theories	Social influence of significant peers/role models	• Peer review in local networks • Outreach visits, individual instruction • Opinion leaders • Influencing key people in social networks • Patient mediated interventions
Organisational	Management theories, system theories	Creating structural and organisational conditions to improve care	• Re-engineering care process • Total quality management/continuous quality improvement approaches • Team building • Enhancing leadership • Changing structures, tasks
Coercive	Economic, power, and learning theories	Control and pressure, external motivation	• Regulations, laws • Budgeting, contracting • Licensing, accreditation • Complaints/legal procedures

Public Health England

Department of Health

Behaviour change and antibiotic prescribing in healthcare settings

Literature review and behavioural analysis

Routledge
Taylor & Francis Group

Health Psychology Review

ISSN: 1743-7199 (Print) 1743-7202 (Online) Journal homepage: http://www.tandfonline.com/loi/rhpr20

A taxonomy of behaviour change methods: an Intervention Mapping approach

Gerjo Kok, Nell H. Gottlieb, Gjalt-Jorn Y. Peters, Patricia Dolan Mullen, Guy S. Parcel, Robert A.C. Ruiter, María E. Fernández, Christine Markham & L. Kay Bartholomew

Antibiotic Overuse: The Influence of Social Norms

The McDonnell Norms Group

J Am Coll Surg (2008) - McDonell - Social Norms and ABuse

Antibiotic prescribing in hospitals: a social and behavioural scientific approach

Marlies E J L Hulscher, Richard P T M Grol, Jos W M van der Meer

Lancet Infectious Diseases (2010) – Hulscher et al - Social and Behavioural Approach

Journal of Antimicrobial Chemotherapy (2009) **63**, 230–237
doi:10.1093/jac/dkn508
Advance Access publication 18 December 2008

JAC

Sustainability for behaviour change in the fight against antibiotic resistance: a social marketing framework

Timothy Edgar[1]*, Stephanie D. Boyd[2] and Megan J. Palamé[1]

Upsala Journal of Medical Sciences. 2014; 119: 125–133

informa
healthcare

'We can never change the behaviour of any other human being, but we can facilitate for others to modify their own behaviour.'

REVIEW ARTICLE

Understanding and changing human behaviour—antibiotic mainstreaming as an approach to facilitate modification of provider and consumer behaviour

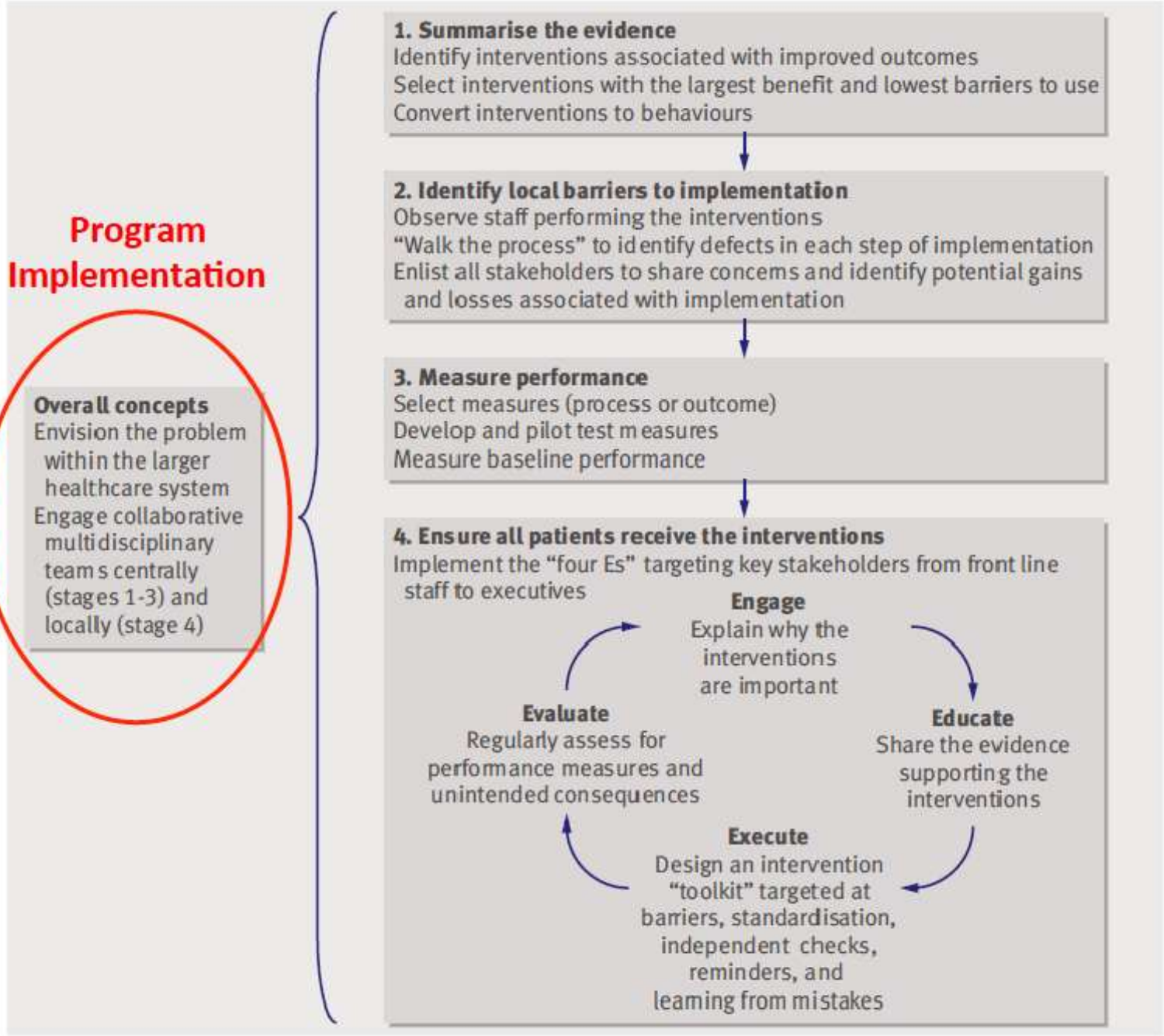
CECILIA STÅLSBY LUNDBORG[1] & ASHOK J. TAMHANKAR[1,2]

Charani E et al Behavior Change Strategies to Influence Antibiotic Prescribing in Acute Care: A Systematic Review. CID, October 2011;53(7):651–662

Techniques d'amélioration continue de la qualité

- Techniques dérivées de l'industrie
- Cibler pratiques non optimales
- Programmer une intervention : but / mesures / changements
- Mesurer des « **processes of care** » *qui ont un impact en terme de morbi-mortalité* ; définitions précises, mesures faciles à collecter
- Mesurer performances de base ; expliquer pourquoi un changement est nécessaire
- Impliquer tous les acteurs dès le début
- Tester des interventions à **petite échelle**
- Ne pas viser la perfection d'emblée; tester plusieurs idées
- **Audit continu** des « processes of care », environ 20/mois, fréquence rapprochée avec **feedback en temps réel**
- Tester de nouvelles idées en fonction des résultats
- Étendre à d'autres unités progressivement, en testant à chaque fois
- Continuer les audits de manière pérenne

Pulcini et al. DMHO 2007



Pronovost P, Berenholtz S, Needham D. BMJ 2008;337:a1714

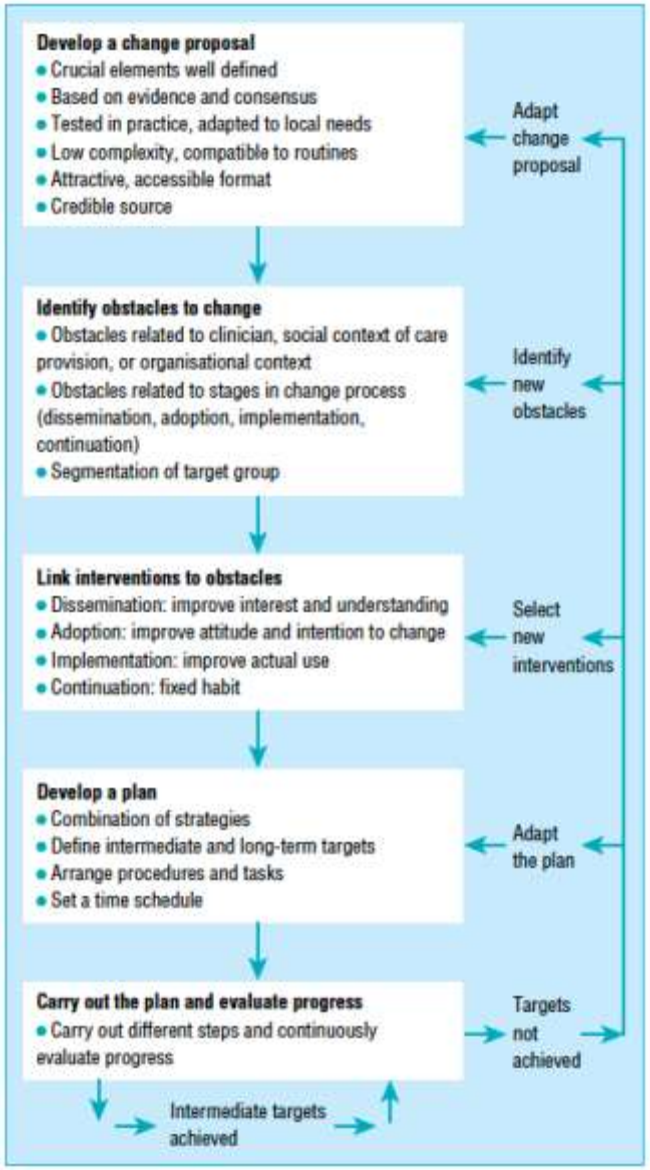
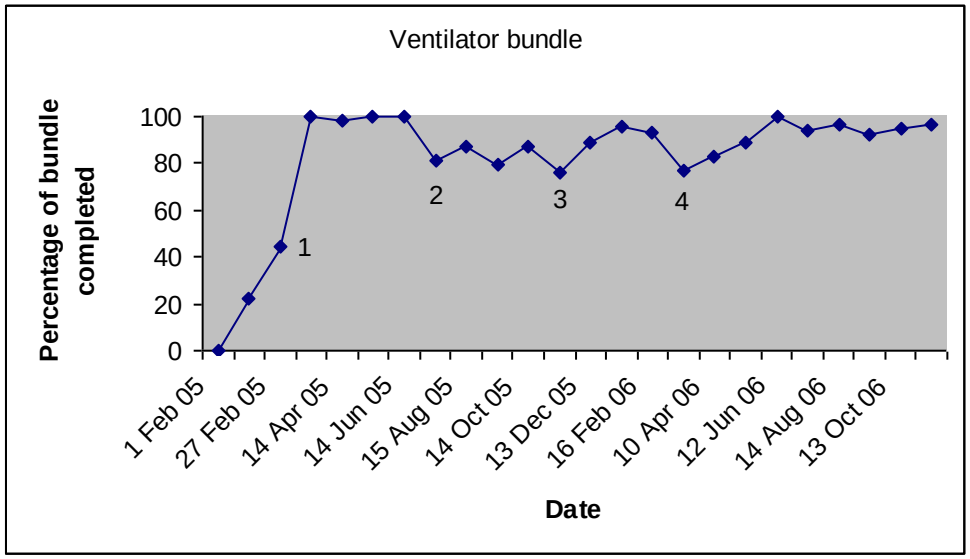


Fig 1 Stepwise, cyclical process of changing clinical practice

Représentation graphique « Run chart »



Éviter l'audit ponctuel avec résultats différés…

1. Plan: How to change?

- Choisir l'intervention:
  - Basée sur les preuves ou les recommandations
  - Performance actuelle insuffisante
  - Commencer par ce qui est facile
- Comprendre les freins et facilitateurs
- Convaincre et impliquer
- Planifier l'intervention (multifacette, adaptée au contexte), en fixant un objectif déterminé (quoi, qui, quand, comment)

Flottorp et al. Implementation Science 2013, 8:35
http://www.implementationscience.com/content/8/1/35

IMPLEMENTATION SCIENCE

SYSTEMATIC REVIEW Open Access

A checklist for identifying determinants of practice: A systematic review and synthesis of frameworks and taxonomies of factors that prevent or enable improvements in healthcare professional practice

Signe A Flottorp[1,2*], Andrew D Oxman[1], Jane Krause[3], Nyokabi R Musila[4], Michel Wensing[5], Maciek Godycki-Cwirko[6], Richard Baker[3] and Martin P Eccles[7]

checklist with 57 potential determinants of practice grouped in seven domains: guideline factors, individual health professional factors, patient factors, professional interactions, incentives and resources, capacity for organisational change, and social, political, and legal factors. We also developed five worksheets to facilitate the use of the checklist.

Clé du succès…

- Y aller petit à petit
- Low-hanging fruits

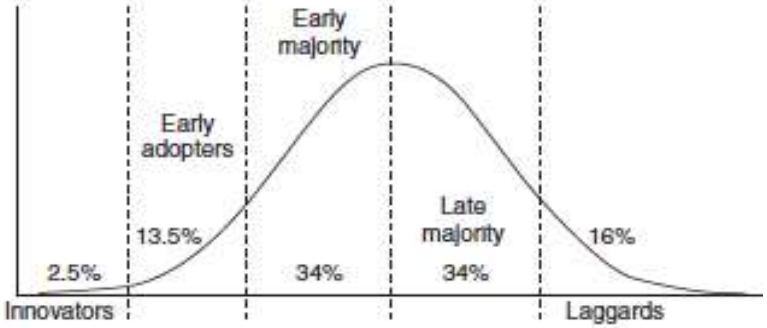


Fig. 1. Rogers's adoption/innovation bell curve (reproduced

Pulcini et al., Disease Management Health Outcomes 2007

2. Do

- Impliquer les acteurs de terrain

3. Study

- How to assess if your change is an improvement
- And how to adapt your strategy

- Mesure d'indicateurs: prévoir temps de collecte et d'analyse, data for action
- Pourquoi cela a marché, ou non

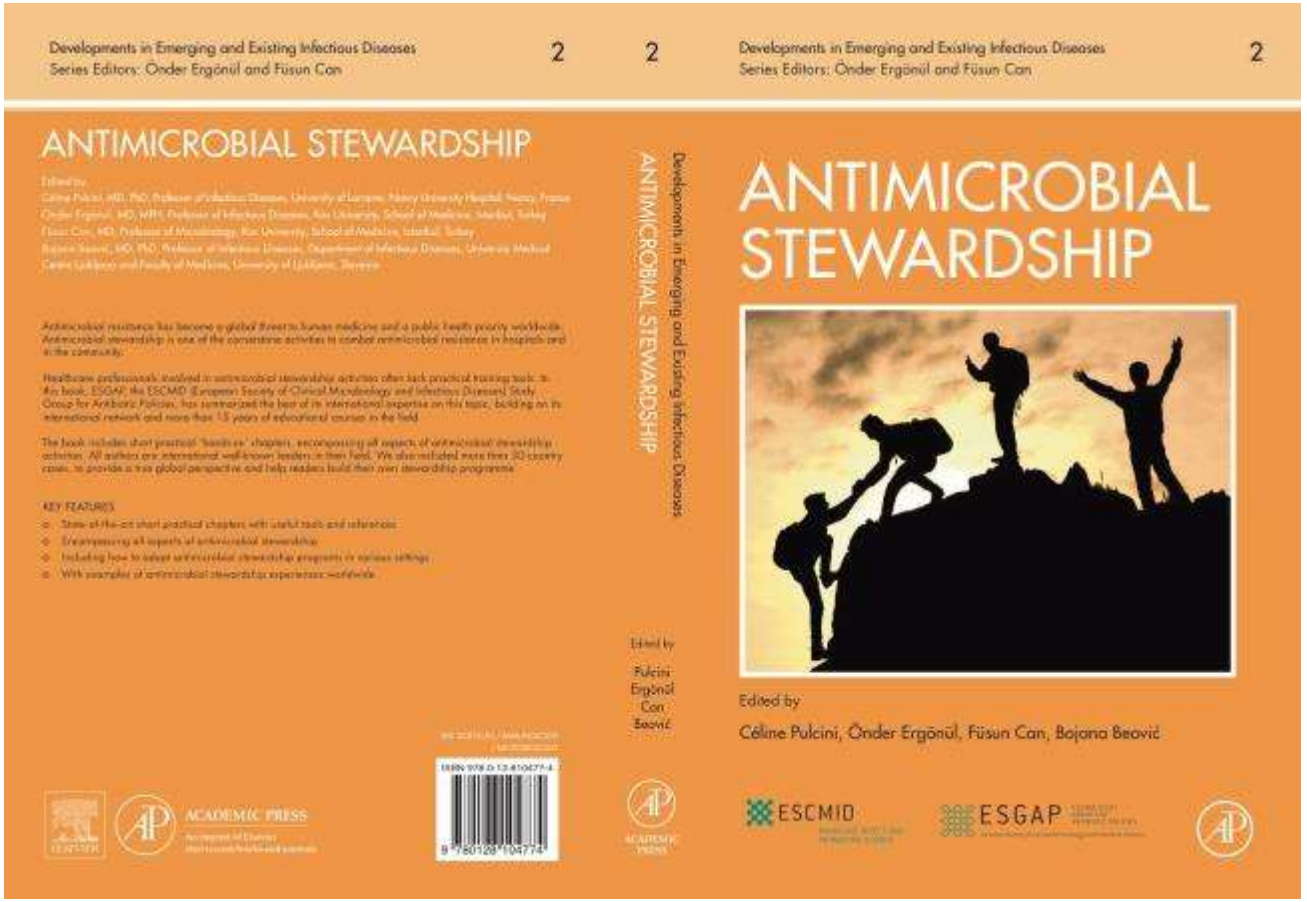
- Phase souvent oubliée en pratique

4. Act

- Recommencer le cycle, en adaptant de nouveau l'intervention, et en continuant à mesurer les indicateurs et à évaluer les freins/facilitateurs

- Mise en place progressive d'une stratégie à grande échelle

Pour en savoir plus



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Antimicrobial Stewardship: Managing Antibiotic Resistance

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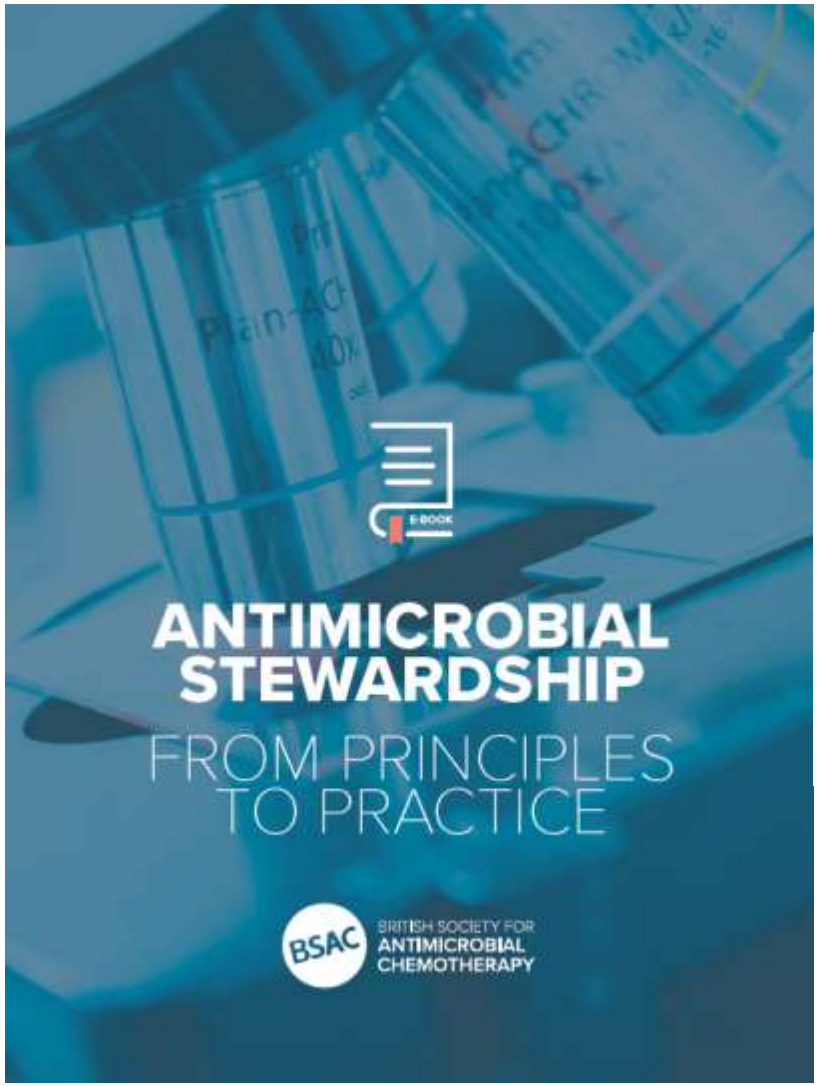
INTRODUCTION

Understand antibiotic resistance, and how antimicrobial stewardship can slow down or reduce it, with this free online course

WATCH THE TRAILER

UNIVERSITY OF DUNDEE

BSAC The British Society for Antimicrobial Chemotherapy



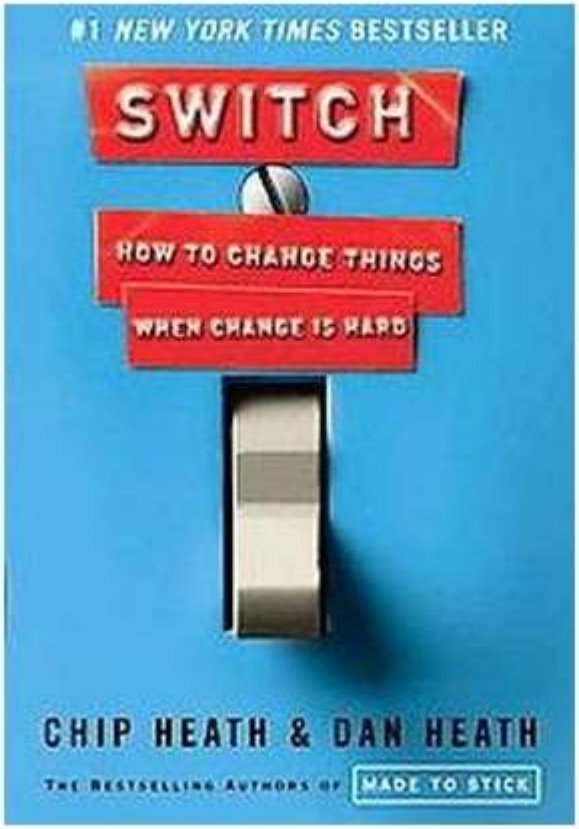
THIS E-BOOK HAS BEEN DEVELOPED BY BSAC

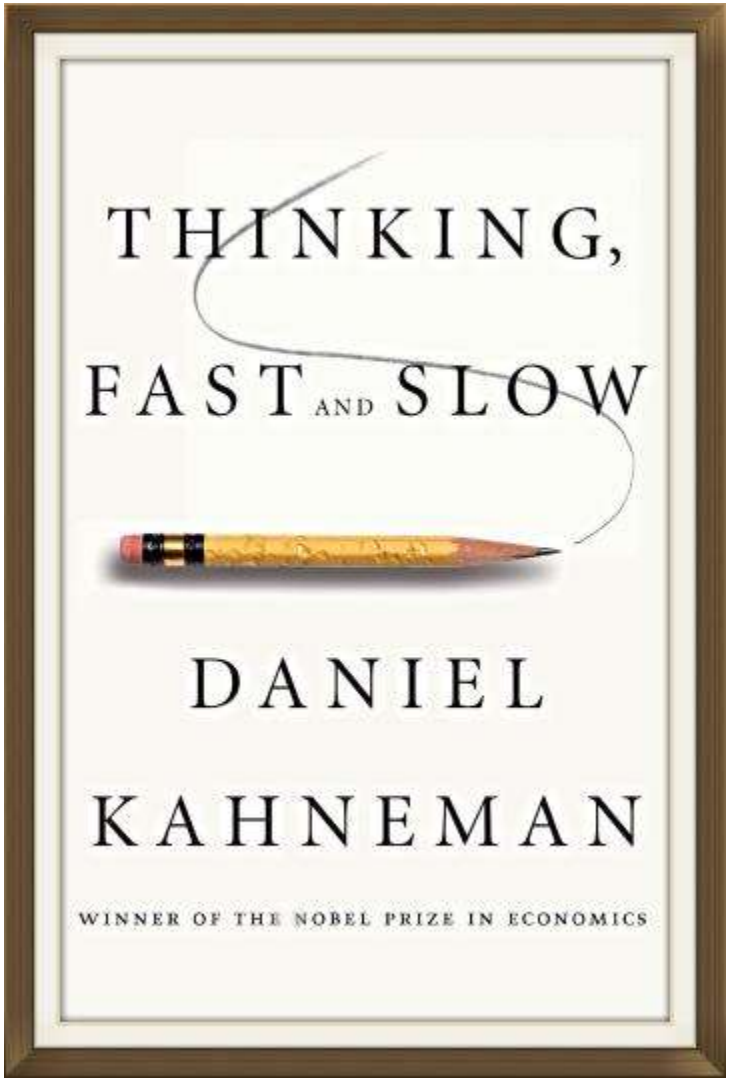
BSAC BRITISH SOCIETY FOR ANTIMICROBIAL CHEMOTHERAPY

IN COLLABORATION WITH ESGAP/ESCMID

ESGAP

ESCMID MANAGING INFECTIONS PROMOTING SCIENCE


#1 NEW YORK TIMES BESTSELLER
SWITCH
HOW TO CHANGE THINGS
WHEN CHANGE IS HARD
CHIP HEATH & DAN HEATH
THE BESTSELLING AUTHORS OF
MADE TO STICK


THINKING,
FAST AND SLOW
DANIEL
KAHNEMAN
WINNER OF THE NOBEL PRIZE IN ECONOMICS

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Jeudi 11 Octobre 2018

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COMMENT FAIRE APPLIQUER LES BONNES PRATIQUES D'HYGIÈNE ET D'ANTIBIOTHÉRAPIE ?
RÉFLEXION SUR L'IMPLEMENTATION ET SES MÉTHODES.

9h30-10h Accueil des participants et introduction

10h-12h30 Science de l'Implementation

10h – 10h35 QU'EST-CE QUE LA SCIENCE DE L'IMPLEMENTATION ? POURQUOI EN AVONS-NOUS BESOIN?
Prof Marties Hulscher (Radboud Institute for Health Sciences, Pays-Bas)

10h35 – 11h10 COMMENT RÉUSSIR LA MISE EN ŒUVRE D'UNE INTERVENTION DE E-SANTÉ APPLIQUÉE À L'HYGIÈNE ET AU BON USAGE?
Dr Zarnie Khadjesari (University of East Anglia, UK)

11h10 – 11h45 MARCHE À SUIVRE POUR LA MISE EN ŒUVRE DES BONNES PRATIQUES
Dr Walter Zingg (CHU Genève, Suisse)

11h45 – 12h20 COMMENT GÉRER LES DIVERS AGENDAS ET PRIORITÉS À L'HOPITAL?
Dr Raheelah Ahmad (Imperial College London)

12h30-13h30 Pause déjeuner/buffet

13h30-16h00 Atelier prévention de l'infection

13h30 – 14h15 QUELLE PLACE POUR LES PARAMEDICAUX DANS LE PROCESSUS D'IMPLEMENTATION?
Dr Enrique Castro-Sanchez (Imperial College London)

14h15 – 15h00 ORGANISATION, MANAGEMENT ET STRUCTURE DE LA PREVENTION DE L'INFECTION À L'HOPITAL
Dr Walter Zingg (CHU Genève, Suisse)

15h00 – 16h00 CAS CONCRETS: OUTILS POUR CHANGER LES PRATIQUES?
Dr Raheelah Ahmad (Imperial College London)

La Cité Nantes Events Center - 5 rue de Valmy BP 24102 - 44041 Nantes cedex 1s
Tramway: ligne 1 – station « Duchesse Anne – Château des Ducs de Bretagne », Busway: ligne 4 – arrêt « Cité internationale des Congrès ».

13h30-16h00 Atelier bon usage des antibiotiques

13h30 – 14h15 DÉTERMINANTS SOCIO-CULTURELS DE LA PRESCRIPTION DES ANTIBIOTIQUES: QUELLE STRATÉGIE POUR LE BON USAGE?
Dr Esmita Charani (Imperial College London)

14h15 – 15h00 IMPLÉMENTATION ET QUALITÉ: COMMENT S'EN SERVIR EN PRATIQUE
Dr Jeroen Schouten (Radboud University Medical Centre Nijmegen, the Netherlands)

15h00 – 16h00 CAS CONCRETS: OUTILS POUR CHANGER LES PRATIQUES?
Dr Esmita Charani, Dr Jeroen Schouten, Prof. Céline Pulcini

ars Imperial College London SF2H Risque infectieux et soin MedQual Spilf

Sans oublier…

- Séminaire Groupe Bon usage de la SPILF (18 et 19 octobre 2018)
- Cours ESGAP (avant l'ECCMID)